4:Grajdanzev--120-121 S-4 (no date) 1942 Formosans-1-3
116, 439, 505, 705

"The products of Taiwan can be brought to Japan only by sea: it was pointed out above that air freight-transport is insignificant because it is too expensive. As will be shown in the next chapter, the external trade of Taiwan is chiefly with Japan. The following table gives information on the shipping line connecting Taiwan with Japan and the continent.

This table shows that coastal shipping in Taiwan is not developed. The only line of importance is Keelung--Karenko, which is a necessity because the eastern railroad is not connected with the railroad network of the island, freight being transported exclusively by ships. Information concerning the lines connecting Taiwan with Japan shows how close are the commercial relations between the two countries,.... Lines connecting Taiwan with Manchuria direct and via Korea (Takao--Seishin) are of recent origin, while it will be observed that there are many more lines connecting Taiwan with China and with Southeastern Asia than is commensurate with the trade of Taiwan with these regions. The lines connecting the island with China probably serve the army and organizations connected with it, for Taiwan is the supply base for the armies now operating in South China.

4:Grajdanzev--120-121 S-4 (no date) 1942 Formosans-2
116, 439, 505, 705

Taiwan's Shipping Lines in 1939

Line	Number of vessels plying	Number of voyages (minimum per year)	Tonnage of vessels used (minimum)
Keelung--Kobe	6	84	8,000 tons or more
Takao--Tokyo	6	90	4,000 "
Takao--Tokyo*	2	24	2,500 "
Takao--Seishin (Korea)	2	12	2,000 "
Takao--Jinsen (Chemulpo) Korea	2	24	2,000 "
Takao--Dairen (Kwantung, Manch..)	2	46	4,000 "
Takao--Tientsin	2	24	2,000 "
Takao--Shanghai	2	36	2,000 "
Keelung--Amoy	1	36	1,500 "
Keelung--Hongkong	2	48	1,500 "
Takao--Canton	1	24	1,500 "
Keelung--Java	2	12	3,000 "
Keelung--Philippines	3	24	3,000 "

Taiwan's Shipping Lines in 1939 [Cont.]

Line	Number of vessels plying	Number of voyages (minimum per year)	Tonnage of vessels used (minimum)
Takao--Aparri (Philippines) since 1938	1	30	3,000 tons or more
Calls of Southern lines	2	24	5,000 "
Keelung--Karenko (Taiwan)	2	300	2,500 "
Coastal line, East of Taiwan	2	70	700 "
Takao--the Pescadores	1	156	700 "
Shinko--Koto†	1	60	50 "
Calls of European lines (Tokyo--London)	8	24	8,000 "

* Used for 'special purposes of the Army'

† Islands to the southeast of Taiwan, a part of the government-general. [Botel Tobago--analyst]"

6: Kirchhoff--34 [3] U-4 (no date) 1895 Formosans
116, 501, 505

Although recently steamers have greatly limited the use of junks in Formosan commerce also, nevertheless the junks are able to maintain themselves against this superior competition for two reasons: the keelless junks of shallow draught are more easily able to enter and to leave the shallow harbors of Formosa, while on the other hand, in view of their smaller crews and the smaller cargo required, they can wait to load in the harbor without great expense. When the wind is favorable, the junks can cover the distance between Formosa and Fo-kiën or Ning-po in a surprisingly short time. The little junks of between 10 and 25 tons are also able to travel over very shallow regions of the coastal waters, and suspend service only in the most stormy winter periods. They are absolutely indispensable for transporting goods from the various coastal regions and from the interior of the island, by water, to the four large treaty ports.

6: Kirchhoff-- 36 U 4 (no date) 1895 Formosans
116, 361, 505

Upstream [VMM: from Tansui] on the right bank also, there follows the populous town of Tua-tu-tia, the chief center for the preparation and export of tea, and farther along Mang-ka or Bang-ka, important because of the fact that larger junks come up this far on the Tam-sui (which should really be called the Sintiam at Bang-ka); this explains the dense crowds in the terribly filthy streets of Bang-ka, where humans and pigs fight for room. In particular, the small vessels bring down camphor from the mountain streams to be reshipped here.

9: Yamasaki--227-228 N-5 (1896-1897) 1900 Formosans
116, 133, 312, 505

The Tamsui-kei, which together with its two tributaries on the right-hand side, the Shinten and Kilung, flows through the fertile plain of Taihoku, is important not only for watering the fields but also in communications. At its mouth lies the harbor of Tamsui, already mentioned. From there there always travel many Chinese ships and river steamers 20 km. farther up the river to Tai-tō-tei (Tautuatea), which is the largest freshwater port of Taiwan and is quite close to the capital of Taihoku. The trading vessels [228] can travel another 20 km. to the southeast as far as Taikokan (Takoham), a small town on the border of the native territory. The surroundings of the town of Taikokan are well known for camphor and other forest products. So one can always see many small boats with these products traveling from there to Taitotei on the swift flowing Taikokan-kei. The largest tributary of Tamsui-kei is the Kilung-kei. It flows through a longitudinal valley in the Tertiary range of Sanshōrei, a famous battlefield and a difficult mountain pass. It is about 60 km. long and navigable over most of its extent. Along the upper course of the Tamsui-kei river there are gold fields and bituminous coal deposits. The port of Kilung also lies quite close to the side of a small hill on the river. Thus this small but voluminous river also has considerable importance for transport in this region, where the roads leading into the country are in a bad condition.

10: Schumacher--224 [4] T-1 (ca. 1896) 1898 Formosans
116, 175, 226, 505

The Chinese fishermen of Lokkang are born on their boats and probably have never set foot in a town. They must be the direct descendants of the dangerous and powerful pirates who even hundreds of years ago were forbidden to enter Chinese ports and rivers. Now they are poverty stricken and on the way to becoming extinct because it is not quite so simple to seize ocean liners made of iron and steel as it was to catch barges and galleys. Now they sail along the coasts with their junks and pick up freight which must be unloaded the next day if they are eager to make a business of freight transportation. Carried by the flood they continue these voyages until the storm throws them on the beach or casts them adrift on the open sea where the waves are more regular than near the shallow shores, but still high enough to embrace the junks and to crush them like rotten match-boxes.

42: Schetelig--386 T-2 (no date) 1868 Formosans
116, 135, 501, 505

I decided to visit Kilung first. On the journey thither by water we saw the now celebrated sulphur springs in the so-called Hell Valley. In addition to the plentiful sulphur springs, they have high pressure water vapor impregnated with SH, and also bring up a mass of clay similar to the contents of the mud volcanoes. From this the Chinese obtain large quantities of sulphur by simply boiling it off. The surroundings of the river become ever more beautiful once one has left the broader part of the lower Tamsui course and has passed through the so-called Manka Plain (Manka is the name of the chief town of the district of Tamsui-Ting). Gently rising and luxuriantly coated clay schist hills come down almost to the river bed, while in the distance picturesquely grouped and precipitous sandstone mountains offer a varied picture to the eye. But soon hard work is called for, for the rapids, which now occur in great numbers, can be passed only with difficulty and our crew stand up to their shoulders in water to shove the loaded vessel over the pebbles, while the traveler must also quite frequently jump out in order to lighten the boat and to help. Other boats sweep down past us at a great speed for the most part laden with hemp, indigo, potatoes or coal. On the seaward journey the force of the water does all that is necessary, and the skillful Chinese has equipped the boat only with a rudder at the back and, remarkably enough, in front also, in order to steer round the rocks without danger. Before coming to Kilung one crosses the watershed, a small height of some 200 to 300 feet, which sinks sharply towards Kilung and the sea.

499 to erect 31 spans upon the existing concrete piers built by the Japanese in 1937. The completion of the bridges provides the railroad tracks of the Taiwan Sugar Corporation, and sugar cane and other agricultural products can be transported at much less cost than heretofore.

493 The comparatively few passenger automobiles are supplemented by the bicycles, pedicabs, and motorcycles. The extensive use of bicycles for short-distance transport, particularly within a city, is necessary where bus service is infrequent and buses overcrowded. It is reported that in 1955 in the city of Taipei alone there were over 120,000 bicycles and more than 100,000 pedicabs.[9]

Pedestrians on the highways and in the streets must exercise extreme caution to avoid recklessly driven vehicles. During the first nine months of 1955, there were 1,694 accidents caused by motor vehicles, resulting in 250 deaths and 1,837 injuries. Sixty-eight per cent of the accidents was attributed to reckless drivers and 13.3 per cent to the carelessness of pedestrians.[10]

IV. SHIPPING

505 Keelung in the north and Kaohsiung on the southwest coast are the island's two most important natural harbors. All exports and imports pass through these harbors, and they handle, in addition, approximately 10 per cent of coastal shipping. Keelung is able to accomodate at a single time up to twenty-five 3,000- to 20,000-ton

9. The Central Daily News, Nov.14,1955.
10. Ibid.

505 ocean-going vessels, and in 1954 handled imports amounting to 671,000 metric tons; exports from Keelung amounted to 235,000 metric tons. Kaohsiung, large enough to accomodate as many as thirty-seven ships of up to 20,000-ton capacity, handled 60 per cent of the island's total imports[11] and approximately 70 per cent of total exports in the year 1954. Major export commodities handled by the harbor at Kaohsiung include sugar, salt, and cement. The volume of export has fluctuated considerably in the past several years.[12]

Coastal shipping makes possible bulk transport between the western and eastern sections of the island, which might otherwise be delayed during certain seasons when typhoons damage or render the highways impassable. Shipping between the island proper and offshore islands such as Quemoy, Matsu, and the Pescadores is dependent upon small steamship and motor-powered sailing boats.

V. AVIATION

509 Formos'a most important international airport is situated at Sunghan, a suburb of Taipei. The airfields at Tainan, Makung, and Pingtung are designated as supplementary airports for emergency landings. The airfield at Sungshan is
507 equipped with four air-ground high frequency radiotelephone transmitters (3485 kc., 56125 kc., 8220 kc., and 13240 kc.), assuring communication

11. FOA, Mission to China, op. cit.
12. Industry of Free China, Vol. III, No.5, May 1955, Table 12.